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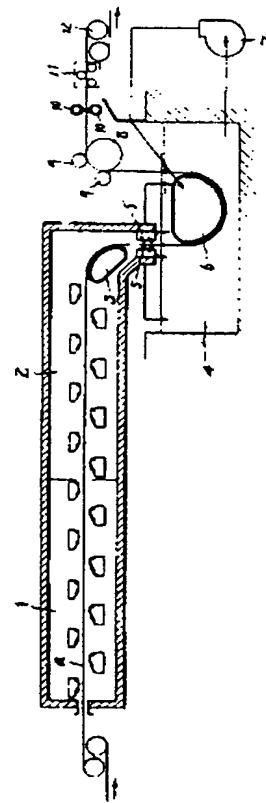
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TITLE : METHOD FOR CONTINUOUS AND
QUICK HARDENING OF ALUMINUM
AND ALUMINUM ALLOY STRIP
MATERIALS



ABSTRACT : PURPOSE: To attain to enhance hardening efficiency and to shorten a hardening delay time in continuous automatic operation, by a method wherein a material is sent into a continuous floating type heating furnace in a strip form without forming the same into a sheet form and the heated material is directly introduced into a cooling tank.

CONSTITUTION: A strip material (a) continuously sent into a heating furnace is advanced to the direction of arrow to rapidly raise the temp. thereof to a proper temp. in a temp. raising part 1 and, after each part thereof is uniformly heated in a soaking part 2, the heated strip material (a) is deflected to be introduced into cooling water within a cooling water tank 4 approaching the outlet of the soaking part 2. By this method, a hardening delay time can be reduced to about 1/10 as compared to a conventional one. When the material (a) introduced into the tank 4 is deflected along the semi-circular outer peripheral part of a sprinkler pad 6 having a semi-circular cross area in the tank 4 to be advanced upwardly, pressurized water is injected to the strip material (a) from the pad 6. By this method, sliding friction between the material (a) and the pad 6 is eliminated and the tensile force generated to the material (a) is adjusted through the adjustment of water pressure to prevent the generation of excessive stress of the material (a).

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